a1 cancel.

stream being received, corresponding to the program number obtained by decoding the received command.

3. (Amended) A multi-media system comprising:

a receiver for receiving a transport stream and a recording/reproducing device for recording/reproducing the transport stream, said receiver comprising:

a first signal processor for parsing program specific information (PSI) of the received transport stream and decoding a video signal and an audio signal of an intended program based on the parsed PSI;

an input device for entering one or more program numbers of intended programs; and

a first digital interface for receiving a program number of an intended program from said input device, generating a program number control command based on [a] the program number of the intended program [received from said input device, to transfer the command], and [for transferring] transmitting a transport stream provided by said first signal processor and the program number control command; and

said recording/reproducing device comprising:

a second digital interface for receiving the program number control command and the transport stream from said from said first digital interface and decoding the program number control command [transferred via said first digital interface and for receiving the transport stream being transferred via the first digital interface] to obtain the program number of the intended program; and

a second signal processor for extracting [an] the intended program from the transport stream received by said second digital interface, based on the program number, and [for] recording the extracted [result] program on recording media during a recording mode, and [for] generating a reproduced transport stream which is provided to the second digital interface during a playback mode.

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6. (Amended) The multi-media system of claim 3, wherein said first digital interface generates [a] the program number control command based on the parsed PSI.

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13. (Amended) The multi-media system of claim 7, wherein said first digital interface comprises:

a first microcomputer including a transaction layer and a serial bus management layer, as software, for generating a program number control command based on a program number received from the input device, using a write transaction and a read transaction;

a first link layer for adding an asynchronous header to the program number control command received from the first microcomputer to convert the program number control command into serial data; and

a first physical layer for converting the serial data into an electrical signal.

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15. (Amended) The multi-media system of claim [7] 13, wherein said second digital interface comprises:

a second physical layer for converting the program number control command electrical signal, transferred from said first physical layer, into digital data;

a second link layer for converting the program number control command digital data into parallel data, and for removing an asynchronous header; and

a second microcomputer including a transaction layer and a serial bus management layer, as software, for recording the program number on a predetermined region of a recording medium by recognizing the program number control command during a recording mode, and for reading out the program number of the intended program recorded in the predetermined region during a playback mode.

22. (Amended) A method for transferring and receiving a program number between a receiver with a digital interface for receiving a transport stream and a recording/reproducing device with a digital interface for recording/reproducing the transport stream on/from a recording medium, the method comprising the steps of:

(a) providing a program number of an intended program to be recorded; and

(b) generating a program number control command corresponding to the provided program number to transfer the program number control command, from the receiver to the recording/reproducing device.

Please ADD new claims 31-67 as follows.

--31. A digital audio/video (A/V) device comprising:

a receiver having a digital interface, for generating a control command based on a program number received from a user, and for transferring the control command in an asynchronous transfer mode via the digital interface.

32. The device of claim 31, further comprising an input device for inputting said program number of an intended program.

33. The device of claim 32, wherein the input device is a remote controller.

34. A digital audio/video (A/V) recording/reproducing device comprising:

a control command receiver including a digital interface for decoding a control command transferred from a digital audio/video (A/V) device, and recording/reproducing a transport stream being received, corresponding to a program number obtained by decoding the received control command.

35. A digital audio/video (A/V) device having a receiver for receiving a transport stream, wherein the receiver comprises:

a signal processor for parsing program specific information (PSI) of the received transport stream and decoding a video signal and an audio signal of an intended program based on the parsed PSI; and

a digital interface for generating a control command based on a program number input by a user, and transferring a transport stream output from the signal processor and the control command.

36. The device of claim 35, further comprising an input device for inputting a program number of an intended program.

37. The device of claim 36, wherein the input device is a remote controller.

38. The device of claim 36, wherein the receiver is connected to at least one recording/reproducing device using the digital interface and the receiver and the recording/reproducing device are controlled by the input device.

39. The device of claim 35, wherein the digital interface generates a command based on the parsed PSI.

40. The device of claim 35, wherein the digital interface comprises an IEEE 1394 interface.

41. The device of claim 40, wherein the digital interface transfers the transport stream as isochronous packets during an isochronous transfer mode, and transfers the program number as asynchronous packets during an asynchronous transfer mode using a control command set.

42. The device of claim 41, wherein the control command set is an audio/video control command and transaction set (AV/C CTS).

43. The device of claim 35, wherein the digital interface transfers a multi-program transport stream as isochronous packets in an isochronous transfer mode.

44. The device of claim 36, wherein the digital interface transfers a multi-program transport stream as isochronous packets in an isochronous transfer mode.

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45. The device of claim 35, wherein the digital interface transfers a single program transport stream as isochronous packets in an isochronous transfer mode.

Sub B11

46. The device of claim 38, wherein the digital interface comprises:

a first microcomputer including a transaction layer and a serial bus management layer as software, for generating the control command based on the program number input via the input device, using a write transaction and a read transaction;

a first link layer for adding an asynchronous header to the control command generated by the first microcomputer to convert the control command into serial data; and

a first physical layer for converting the control command serial data into an electrical signal.

a7 Cont.

47. The device of claim 46, wherein the receiver further comprises a first extra header inserter/remover for inserting an extra header into a transport stream being received, to constitute a data block packet for the IEEE 1394 transfer, and for removing the extra header inserted into a reproduced data block packet for the IEEE 1394 transfer, input via the digital interface.

Sub B12

48. A digital audio/video (A/V) recording/reproducing device for recording/reproducing a transport stream transferred from a digital A/V device, the recording/reproducing device comprising:

a digital interface for decoding a program number command transferred from the digital A/V device and for receiving the transport stream being transferred from the digital A/V device; and

a signal processor for extracting an intended program from the transport stream received by the digital interface, based on the program number, and for recording the extracted result on recording media during a recording mode, and for outputting a reproduced transport stream to the digital interface during a playback mode.

49. The device of claim 48, wherein the second digital interface transfers a single program transport stream as isochronous packets in the isochronous transfer mode during a playback mode.

50. The device of claim 48, wherein the digital interface comprises an IEEE 1394 interface.

51. The device of claim 50, wherein the digital interface comprises:

a second physical layer for converting the program number command electrical signal, transferred from the first physical layer, into digital data;

a second link layer for converting the program number command digital data into parallel data, and for removing the asynchronous header; and

a second microcomputer including a transaction layer and a serial bus management layer as software, for recording the program number on a predetermined region of a recording medium

by recognizing the program number command during a recording mode, and for reading out the program number recorded in the predetermined region during a playback mode.

52. The device of claim 51, wherein the recording/reproducing device further comprises a second extra header inserter/remover for removing an extra header inserted into the data block packet for the IEEE 1394 transfer, being received via the digital interface, and for inserting an extra header into the transport stream reproduced from the second signal processor, to constitute the data block packet for the IEEE 1394 transfer.

53. The device of claim 48, wherein the signal processor further comprises an on-screen graphic (OSG) generator for displaying program guide information of a transport stream being received on an OSG display.

54. The device of claim 53, wherein the OSG generator mixes the program guide information with a graphic signal of a background screen to be output to the OSG display.

55. The device of claim 54, wherein the OSG generator mixes the program guide information with the decoded video signal to be output to the OSG display.

56. The device of claim 48, wherein the signal processor further comprises an on-screen display (OSD) generator for displaying the program guide information of a transport stream being received on an OSD display.

57. The device of claim 53, wherein the signal processor does not, in itself, parse program guide information from a transport stream being received via the digital interface.

Sub B4

58. A method for transferring and receiving a program number between a receiver with a digital interface for receiving a transport stream and a recording/ reproducing device with a digital interface for recording/reproducing the transport stream on/from a recording medium, the method comprising the steps of:

(a) inputting a program number of an intended program to be recorded; and

(b) generating a command corresponding to the program number input for transferring the program number command from the receiver to the recording/ reproducing device.

a7 Cont.

59. The method of claim 58, wherein the step (a) comprises the steps of:

(a1) parsing program guide information from the transport stream;

(a2) displaying the parsed program guide information; and

(a3) inputting the program number of the intended program according to the displayed program guide information.

60. The method of claim 59, wherein in the step (a2), the parsed program guide information is displayed on an OSG display.

61. The method of claim 58, further comprising the steps of:

(c) transferring a command for inquiring as to whether to permit the transfer of the program number of the program recorded in the recording medium, from the receiver to the recording/reproducing device, during a playback mode; and

(d) receiving the program number of the program recorded in the recording medium, from the recording/reproducing device.

Sub B14

62. A method for transferring a program number between a receiver with a digital interface for receiving a transport stream and a recording device with a digital interface for recording the transport stream on a recording medium, the method comprising the steps of:

(a) inputting a program number of an intended program to be recorded;

A7 Cont.

(b) transferring a command for inquiring as to whether to permit the recording of the program;

(c) receiving a response for permitting the recording of the program from the recording device; and

(d) transferring a command for performing the recording of the program corresponding to the program number input in the step (a).

63. The method of claim 62, further comprising the step of (e) receiving a response for notifying of the permission of the recording of the program corresponding to the program number, from the recording device.

64. The method of claim 62, wherein the step (a) comprises the steps of:

(a1) parsing program guide information from the transport stream;

(a2) displaying the parsed program guide information; and

(a3) inputting the program number of the intended program according to the displayed program guide information.

Sub B14

65. The method of claim 64, wherein in the step (a2), the parsed program guide information is displayed on an OSG display.

66. The method of claim 64, wherein in the step (a2), the parsed program guide information is displayed on an OSD display.

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67. A method for receiving a program number by a receiver with a digital interface for receiving a transport stream and a reproducing device with a digital interface for reproducing the transport stream of the program recorded on a recording medium, the method comprising the steps of:

(a) inquiring as to whether to permit the transfer of a program number corresponding to the program recorded on the recording medium, during a playback mode;

(b) receiving a response for permitting the reproduction of the program from the reproducing device;

(c) transferring a command for requesting the program number of the program recorded on the recording medium; and

(d) receiving the program number of the program recorded on the recording medium from the reproducing device.--